

ABSTRACT OF THE DISCLOSURE

A removable pressure-sensitive adhesive sheet is disclosed which, when used for fixing adherends thereto in work processing or the like, has such a degree of tackiness as not to peel off the adherends and which, after the work processing or the like, can be easily removed from the adherends without fouling them. The removable pressure-sensitive adhesive sheet comprises a pressure-sensitive adhesive layer constituted of a pressure-sensitive adhesive comprising a polymer in which the content of low-molecular components having a molecular weight of 10^5 or lower is 10% by weight or lower. The polymer constituting the pressure-sensitive adhesive may be an acrylic polymer obtained by polymerizing one or more monomers in liquid or supercritical carbon dioxide. The removable pressure-sensitive adhesive sheet can be used, e.g., as a pressure-sensitive adhesive sheet for semiconductor wafer processing.